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**From:** Leifer, Kerry [Leifer.Kerry@epa.gov]  
**Sent:** 1/5/2021 12:53:14 PM  
**To:** Goodis, Michael [Goodis.Michael@epa.gov]; Aubee, Catherine [Aubee.Catherine@epa.gov]; Fitz, Nancy [Fitz.Nancy@epa.gov]  
**Subject:** RE: storage stability question re: PFAS

Hi Mike,

Yes, at least from a product chemistry perspective, I don't believe there is an easy way to search across pesticide products for product containers of the FLPE/FLPP type. I am looking to see if there may be any other ways to get at that information.

Kerry

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Kerry Leifer, Chief  
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e-mail: leifer.kerry@epa.gov

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**From:** Goodis, Michael  
**Sent:** Monday, January 04, 2021 4:23 PM  
**To:** Leifer, Kerry <Leifer.Kerry@epa.gov>; Aubee, Catherine <Aubee.Catherine@epa.gov>; Fitz, Nancy <Fitz.Nancy@epa.gov>  
**Subject:** RE: storage stability question re: PFAS

Thanks Kerry

I assume there is no easy way to search for which products use FLPP or FLPE containers?

Michael L. Goodis, P.E.  
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**From:** Leifer, Kerry <Leifer.Kerry@epa.gov>  
**Sent:** Monday, January 04, 2021 2:30 PM  
**To:** Goodis, Michael <Goodis.Michael@epa.gov>; Aubee, Catherine <Aubee.Catherine@epa.gov>; Fitz, Nancy <Fitz.Nancy@epa.gov>  
**Subject:** RE: storage stability question re: PFAS

I should add that we also see (although much less commonly) FLPP (fluorinated polypropylene) containers.

Kerry

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**From:** Leifer, Kerry  
**Sent:** Monday, January 04, 2021 2:20 PM  
**To:** Goodis, Michael <[Goodis.Michael@epa.gov](mailto:Goodis.Michael@epa.gov)>; Aubee, Catherine <[Aubee.Catherine@epa.gov](mailto:Aubee.Catherine@epa.gov)>; Fitz, Nancy <[Fitz.Nancy@epa.gov](mailto:Fitz.Nancy@epa.gov)>  
**Subject:** RE: storage stability question re: PFAS

We do commonly see the use of FLPE (fluorinated high-density polyethylene) containers in pesticide product storage stability/corrosion characteristics studies. [FLPE is approved by FDA as an indirect food additive (use in food/beverage containers) under 21 CFR 177.1520.] Our storage stability/corrosion characteristics study data requirements do not include a registrant needing to provide any specific information regarding the manufacturing process of the container or any chemical analysis of the container or possible impurities thereof.

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**From:** Goodis, Michael  
**Sent:** Monday, January 04, 2021 1:24 PM  
**To:** Leifer, Kerry <[Leifer.Kerry@epa.gov](mailto:Leifer.Kerry@epa.gov)>; Aubee, Catherine <[Aubee.Catherine@epa.gov](mailto:Aubee.Catherine@epa.gov)>; Fitz, Nancy <[Fitz.Nancy@epa.gov](mailto:Fitz.Nancy@epa.gov)>  
**Subject:** RE: storage stability question re: PFAS

The issue that seems to be developing is that HDPE– High Density Poly Ethylene containers are being treated to fluorine gas that coats and strengthens them.  
This process is creating a situation where PFAS can be leached into the pesticide product stored in the treated container depending on the ingredients in the product.

Any information that may be in the submitted data that can help point us to similar conditions would be helpful because this may end up being a broader issue about the containers.

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**From:** Leifer, Kerry <[Leifer.Kerry@epa.gov](mailto:Leifer.Kerry@epa.gov)>  
**Sent:** Monday, January 04, 2021 12:08 PM  
**To:** Aubee, Catherine <[Aubee.Catherine@epa.gov](mailto:Aubee.Catherine@epa.gov)>; Fitz, Nancy <[Fitz.Nancy@epa.gov](mailto:Fitz.Nancy@epa.gov)>  
**Cc:** Goodis, Michael <[Goodis.Michael@epa.gov](mailto:Goodis.Michael@epa.gov)>  
**Subject:** RE: storage stability question re: PFAS

In answer to the first question, other than the reviews themselves we don't extract any information from the storage stability/corrosion characteristics studies. Regarding any PFAS-type coating, I am not aware that we have seen such (typically such coatings are used on paper and pesticide containers typically are not of this type)—I will check to see if I can get more information on that.

In answer to the second question, yes the SS/CC studies are in Documentum.

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**From:** Aubee, Catherine  
**Sent:** Monday, January 04, 2021 11:59 AM  
**To:** Leifer, Kerry <[Leifer.Kerry@epa.gov](mailto:Leifer.Kerry@epa.gov)>; Fitz, Nancy <[Fitz.Nancy@epa.gov](mailto:Fitz.Nancy@epa.gov)>  
**Cc:** Goodis, Michael <[Goodis.Michael@epa.gov](mailto:Goodis.Michael@epa.gov)>  
**Subject:** RE: storage stability question re: PFAS

Thanks! I'm aware that many of these SS/CC data have been submitted but not reviewed. For those that have, is it accurate to say that we do not typically extract this type of information? Are the studies generally available in Documentum?

Best,  
Catherine

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**From:** Leifer, Kerry <[Leifer.Kerry@epa.gov](mailto:Leifer.Kerry@epa.gov)>  
**Sent:** Monday, January 04, 2021 11:48 AM

**To:** Fitz, Nancy <[Fitz.Nancy@epa.gov](mailto:Fitz.Nancy@epa.gov)>; Aubee, Catherine <[Aubee.Catherine@epa.gov](mailto:Aubee.Catherine@epa.gov)>

**Cc:** Goodis, Michael <[Goodis.Michael@epa.gov](mailto:Goodis.Michael@epa.gov)>

**Subject:** RE: storage stability question re: PFAS

The storage stability/corrosion characteristics data requirements includes the identification of the container type, including any coating or liner.

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